

IN THE CLAIMS:

Please AMEND claims 25, 27, 32, 44-45, 48-49, and 85-86;

Please CANCEL claims 31, 39, 69, and 74 without prejudice or disclaimer; and

Please ADD new claims 87-90 as follows.

1-24 (Cancelled)

25. (Currently Amended) An apparatus, comprising:

a receiver configured to receive a request for communication information from a subscriber terminal, and

a processor configured to

provide access to a wireless communication network based on an IEEE 802.11 standard, and

determine the communication information, and

transmit the communication information to a—the subscriber terminal in response to the request,

wherein

said communication information comprises frequency band information indicating a plurality of frequency bands on which at least one access node portion of the wireless communication network is configured to communicate,

said processor is further configured to incorporate the communication information in signaling using a transmission of specific frames to said subscriber terminal, and the communication information further comprises a frequency ~~band coverage~~
~~channel indicator related to at least one that indicates the frequency band of neighboring access nodes of the channel used by the apparatus in the wireless communication network.~~at the respective frequency band.

26. (Cancelled)

27. (Currently Amended) The apparatus according to ~~claim 26~~claim 25, wherein said frequency bands comprise a frequency band of 2.4 GHz and one or more frequency bands between 5 and 6 GHz.

28. (Previously Presented) The apparatus according to claim 25, wherein said communication information further comprises a multiple band indicator related to an access node.

29. (Previously Presented) The apparatus according to claim 25, wherein said communication information further comprises a traffic load indicator related to the at least one frequency band of an access node.

30-31 (Cancelled)

32. (Currently Amended) An apparatus, comprising:

a processor configured to

communicate in a wireless communication network based on an IEEE 802.11 standard,

request communication information from at least one access node of the wireless communication network, and

receive in response to the request the communication information transmitted from the at least one access node of the wireless communication network, wherein

said communication information comprises frequency band information indicating a plurality of frequency bands on which the at least one access node is configured to communicate, wherein said communication information is received from said at least one access node by signaling by transmission of specific frames,

the processor is configured to process the received communication information so as to determine, based on the communication information, a communication connection capability of at least part of the at least one access node on the basis of the frequency band information,

the processor is configured to decide on a communication connection changeover for the apparatus by using a processing result, and

the communication information further comprises a frequency band coverage channel indicator related to at least one that indicates the frequency band of neighboring channel used by the at least one access node at the respective frequency band nodes of the apparatus in the wireless communication network.

33. (Cancelled)

34. (Previously Presented) The apparatus according to claim 32, wherein said frequency bands comprise a frequency band of 2.4 GHz and one or more frequency bands between 5 and 6 GHz.

35. (Previously Presented) The apparatus according to claim 32, wherein said processor is further configured to extract the communication information from a beacon packet broadcasted from the access node.

36. (Previously Presented) The apparatus according to claim 32, wherein said communication information further comprises a multiple band indicator related to at least part of the at least one access node.

37. (Previously Presented) The apparatus according to claim 32, wherein said communication information further comprises a traffic load indicator related to the at least one frequency band of at least part of the at least one transmitting access node.

38-39 (Cancelled)

40. (Previously Presented) The apparatus according to claim 32, wherein the processor is further configured to

detect a signal strength indicator on a predetermined frequency band,
compare the detected signal strength indicator with a predefined threshold value,
wherein the result of the comparison indicates an estimation of the communication connection capability of an access node on another frequency band, and
use the result of said comparison to decide on the communication connection changeover.

41. (Previously Presented) The apparatus according to claim 32, wherein the processor is further configured to decide to change the communication connection from the present frequency band to another frequency band that is common to the apparatus and the access node associated with the apparatus.

42. (Previously Presented) The apparatus according to claim 32, wherein the processor is further configured to decide to change the communication connection from a current access node to a specific frequency band of a neighboring access node that is common to the apparatus and the neighboring access node to be associated with the apparatus.

43. (Previously Presented) The apparatus according to claim 32, wherein the processor is further configured to process communication information transmitted from two or more access nodes in the wireless communication network.

44. (Currently Amended) A computer program embodied on a computer readable storage medium, the program configured to control a processor to perform a process, the process comprising:

receiving a request for communication information from a subscriber terminal;

determining the communication information; and

transmitting said-in response to the request the communication information to athe subscriber terminal, wherein said communication information comprises frequency band information indicating a plurality of frequency bands on which at least one access node in a wireless communication network based on an IEEE 802.11 standard is capable of communication; and

incorporating the communication information in signaling using a transmission of specific frames to said subscriber terminal, wherein

the communication information further comprises a frequency band coverage channel indicator related to at least one that indicates the frequency band of neighboring channel used by the at least one access node at the respective frequency band nodes of the apparatus in the wireless communication network.

45. (Currently Amended) A computer program embodied on a computer readable storage medium, the program configured to control a processor to perform a process, the process comprising:

requesting communication information from at least one access node in a wireless communication network based on an IEEE 802.11 standard;

receiving in response to the requesting the communication information transmitted from the at least one access node in a wireless communication network based on an IEEE 802.11 standard, wherein said communication information comprises frequency band information indicating a plurality of frequency bands on which the at least one access node is capable of communication, wherein said communication information is received from at least one access node by signaling by transmission of specific frames;

processing the received communication information to determine in the subscriber terminal, based on the communication information, a communication connection

capability of at least part of the at least one access node on the basis of the frequency band information and the frequency band coverage indicator; and

deciding, in the subscriber terminal, on a communication connection changeover of the subscriber terminal by using a result of the processing, wherein

the communication information further comprises a frequency band coverage channel indicator related to at least one that indicates the frequency band of neighboring channel used by the at least one access node at the respective frequency band nodes of the apparatus in the wireless communication network.

46-47 (Cancelled)

48. (Currently Amended) A method, comprising:

receiving a request for communication information from a subscriber terminal;

determining the communication information from at least one access node in a wireless communication network based on an IEEE 802.22 standard, wherein said communication information comprises frequency band information indicating a plurality of frequency bands on which said at least one access node is capable of communication; and

transmitting in response to the request said communication information from said at least one access node to athe subscriber terminal by signaling by transmitting specific frames, wherein

the communication information further comprises a frequency band coverage channel indicator related to at least one frequency band of neighboring that indicates the frequency channel used by the at least one access node at the respective frequency band.nodes of the apparatus in the wireless communication network.

49. (Currently Amended) A method, comprising:

requesting communication information from at least one access node in a wireless communication network based on an IEEE 802.22 standard;

receiving in response to the requesting the communication information from the at least one access node in a wireless communication network based on an IEEE 802.22 standard, wherein said communication information comprises frequency band information indicating a plurality of frequency bands on which said at least one access node is configured to communicate, wherein said communication information is received by signaling by transmission of specific frames;

processing the received communication information and determining based on the communication information a communication connection capability of at least part of the at least one access node on the basis of the frequency band information and the frequency band coverage indicator; and

using a processing result for a decision on a communication connection changeover of a subscriber terminal, wherein

the communication information further comprises a frequency band coverage channel indicator related to at least one that indicates the frequency band of neighboring channel used by the at least one access node at the respective frequency band nodes of the apparatus in the wireless communication network.

50-55 (Cancelled)

56. (Previously Presented) The apparatus according to claim 25, wherein the signaling comprises a transmission of one or more specific frames.

57. (Cancelled)

58. (Previously Presented) The apparatus according to claim 28, wherein the multiple band indicator indicates at least one frequency band.

59. (Previously Presented) The apparatus according to claim 32, wherein the signaling comprises a transmission of one or more specific frames.

60. (Cancelled)

61. (Previously Presented) The apparatus according to claim 36, wherein the multiple band indicator indicates at least one frequency band.

62-65 (Cancelled)

66. (Previously Presented) The method according to claim 48, wherein said frequency bands comprise a frequency band of 2.4 GHz and one or more frequency bands between 5 and 6 GHz.

67. (Previously Presented) The method according to claim 48, wherein said communication information further comprises a multiple band indicator related to an access node.

68. (Previously Presented) The method according to claim 48, wherein said communication information further comprises a traffic load indicator related to the at least one frequency band of an access node.

69. (Cancelled)

70. (Previously Presented) The method according to claim 49, wherein said frequency bands comprise a frequency band of 2.4 GHz and one or more frequency bands between 5 and 6 GHz.

71. (Previously Presented) The method according to claim 49, wherein communication information is extracted from a beacon packet broadcasted from the access node.

72. (Previously Presented) The method according to claim 49, wherein said communication information further comprises a multiple band indicator related to at least part of the at least one access node.

73. (Previously Presented) The method according to claim 49, wherein said communication information further comprises a traffic load indicator related to the at least one frequency band of at least part of the at least one transmitting access node.

74. (Cancelled)

75. (Previously Presented) The method according to claim 49, further comprising:

detecting a signal strength indicator on a predetermined frequency band;

comparing the detected signal strength indicator with a predefined threshold value, wherein the result of the comparison indicates an estimation of the communication connection capability of an access node on another frequency band; and

using the result of said comparison to decide on the communication connection changeover.

76. (Previously Presented) The method according to claim 49, further comprising:

deciding to change the communication connection from the present frequency band to another frequency band that is common to the subscriber terminal and the access node associated with the subscriber terminal.

77. (Previously Presented) The method according to claim 49, further comprising:

deciding to change the communication connection from a current access node to a specific frequency band of a neighboring access node that is common to the subscriber terminal and the neighboring access node to be associated with the subscriber terminal.

78. (Previously Presented) The method according to claim 49, further comprising:

processing communication information transmitted from two or more access nodes in the wireless communication network.

79-84 (Cancelled)

85. (Currently Amended) An apparatus, comprising:
access providing means for providing access to a wireless communication network based on an IEEE 802.11 standard;

receiving means for receiving a request for communication information from a subscriber terminal;

determining means for determining the communication information; and
transmitting means for transmitting in response to the request the communication
information to a-the subscriber terminal; and

incorporating means for incorporating the communication information in signaling using a transmission of specific frames to said subscriber terminal, wherein

saidthe communication information further comprises frequency band information indicating a plurality of frequency bands on which at least one access node portion of the wireless communication network is configured to communicate, and a frequency channel indicator that indicates the frequency channel used by the apparatus at the respective frequency.

86. (Currently Amended) An apparatus, comprising:

communicating means for communicating in a wireless communication network based on an IEEE 802.11 standard;

requesting means for requesting communication information from at least one access node of the wireless communication network;

receiving means for receiving the communication information transmitted from the at least one access node of the wireless communication network in response to the request;

processing means for processing the received communication information so as to determine, based on the communication information, a communication connection capability of at least part of the at least one access node on the basis of the frequency band information; and

deciding means for deciding on a communication connection changeover for the apparatus by using a processing result, wherein

said communication information comprises frequency band information indicating a plurality of frequency bands on which the at least one access node is configured to communicate, and further comprises a frequency channel indicator that indicates the frequency channel used by the at least one access node at the respective frequency band,

wherein said communication information is received from said at least one access node by signaling by transmission of specific frames.

87. (New) The apparatus according to claim 25, wherein the communication information further comprises a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the apparatus in the wireless communication network.

88. (New) The apparatus according to claim 32, wherein the communication information further comprises a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the apparatus in the wireless communication network.

89. (New) The method according to claim 48, wherein the communication information further comprises a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the apparatus in the wireless communication network.

90. (New) The method according to claim 49, wherein the communication information further comprises a frequency band coverage indicator related to at least one frequency band of neighboring access nodes of the apparatus in the wireless communication network.